

SCREENING ASSESSMENT FOR A PROPOSED RESIDENTIAL DEVELOPMENT AT ARDAROSTIG, BISHOPSTOWN, CORK.



**In support of the Appropriate Assessment Process
for a SHD Application**

Prepared for:

HW Planning



On behalf of Ardstone Homes Ltd.

Prepared by:

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Contents

1	Introduction	1
1.1	Background: Appropriate Assessment	1
1.2	Methodology	2
2	Brief Description of the Site, Project & Natura 2000 Sites	5
2.1	Site: Location	5
2.2	Site: Walkover.....	5
2.3	Project Details.....	7
2.3.1	Surface-Water Run-Off.....	7
2.3.2	Waste-Water/Foul Effluent.....	9
2.3.3	Other Wastes.....	9
2.4	Description of the Natura 2000 Sites	12
2.4.1	Potential Impact-receptor Pathways: Overview	12
2.4.2	Potential Impact-receptor Pathways: Summary	14
3	Screening: Assessment Criteria	16
3.1	Elements of the Project Likely to Impact on the Natura 2000 Sites.....	16
3.1.1	Indirect Habitat Loss or Deterioration.....	16
3.2	Likely Impacts of the Project on the Natura 2000 Sites	17
3.3	Likely Changes to the Natura 2000 Sites	18
3.4	Likely Impacts on the Natura 2000 Sites as a Whole	19
3.5	Indicators of Significance as a Result of the Identification of Effects Set Out Above	19
3.6	Elements of the Project Likely to Significantly Impact on the Natura 2000 Sites or where the Scale or Magnitude of Impacts are Unknown	19
3.6.1	Potential Significant Effects: Conclusion	19
4	Finding of No Significant Effects Report	21
5	References	24

Figures

Figure 2.1: Study Site Location & Natura 2000 Sites	10
Figure 2.2: Study Site	11

Appendices

Appendix A	Proposed Development
Appendix B	Irish Water Pre-Connection Enquiry Response

Executive Summary

This report presents a Screening assessment, in support of the Appropriate Assessment process, to identify whether significant effects on Natura 2000 sites are likely to arise from the proposed residential development at Ardarostig, Bishopstown, Cork.

It is objectively concluded that no significant effects arising from the development works are likely to occur in relation to the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

1 Introduction

Kelleher Ecology Services Ltd. (KES) was commissioned by HW Planning, on behalf of Ardstone Homes Ltd., to undertake a Screening Assessment in support of the Appropriate Assessment process regarding potential impacts of the proposed residential development at Ardarostig, Bishopstown, Cork on Natura 2000 sites in the wider area. This assessment was undertaken as part of a SHD application by the client for planning permission for the proposed residential development.

1.1 Statement of Competence

1.1.1 Dr Katherine Kelleher

Katherine Kelleher is a graduate of University College Cork with a BSc in Zoology and PhD in Ecology, and established Kelleher Ecology Services in 2011. She has over 15 years of experience in ecological consultancy, acting as project manager on a range of ecological assessments & projects including solar/wind farm, road, gas pipeline, landfill, grid connection, industrial development, retail and housing. Katherine has significant experience of research, evaluative and analytical work in relation to planning applications, EIAR, appropriate assessment, planning compliance, commitments, licensing, baseline assessments, scoping studies *etc.*

1.2 Background: Appropriate Assessment Process

The Appropriate Assessment process is undertaken to consider if any proposed plan or project is likely to have a significant impact with associated effect on any site that has been designated under the E.U. Habitats Directive (92/43/EEC) as a Special Area of Conservation (SAC), or the E.U. Birds Directive (79/409/EEC as amended 2009/147/EC) as a Special Protection Area (SPA). Collectively, SAC's and SPA's are known as Natura 2000 sites. The E.U. Habitats Directive has been transposed into Irish law under Part X AB of the Planning and Development Act 2000-2015 and the European Communities (Birds and Natural Habitats) Regulations 2011-2015. Appropriate Assessment has been a legal requirement in Ireland since the 26th of February 1997 when the European Communities (Natural Habitats) Regulations 1997 (S.I. No. 94/1997) were signed into law by the then Minister for Arts, Culture and the Gaeltacht, Michael D. Higgins.

A Screening assessment is part of an appropriate assessment process that consists of up to four stages, where each stage follows on from the preceding one. The need to undertake one or more stages of this process has arisen from Articles 6(3) and 6(4) of the aforementioned Habitats Directive; where the former Article is primarily concerned with the protection of sites from likely significant effects and the latter allows derogation from such protection in very specific circumstances involving imperative reasons of overriding public interest.

In Stage 1, a screening process is undertaken to identify whether significant¹ effects on a Natura 2000 site are likely to arise from the project or plan in question. If significant effects are likely to occur or if it is

¹ A European Court of Justice ruling in 2013 (Case C-258/11) has stated the following regarding significant effect: "Where a plan or project not directly connected with or necessary to the management of a site is likely to undermine the site's conservation objectives, it must be considered likely to have a significant effect on that site. The assessment of that risk must be made in the light of, in particular, the characteristics and specific environmental

unclear whether significant effects are likely to occur, then the process moves on to Stage 2 where an appropriate assessment (AA) considers potential mitigation measures for adverse impacts. If it is considered that mitigation measures will not be able to satisfactorily reduce potential adverse impact on a Natura 2000 site then an assessment of alternative solutions is considered in Stage 3. This is then followed by Stage 4 in the event that adverse impacts remain and the proposed activity or development is deemed to be of Imperative Reasons of Overriding Public Interest (IROPI), allowing an assessment of compensatory measures to be considered. The outcome of a Stage 2 and higher assessment is presented in a report known as a Natura Impact Statement (NIS).

While a Screening assessment can be provided by the advocate of the plan or project in question, the AA itself is undertaken by the competent/public authority (*e.g.* the planning authority, An Bord Pleanála *etc.*). In this case, An Bord Pleanála is the competent authority in relation to AA regarding the project described herein; although informed by this Screening Assessment and any other relevant information provided.

1.3 Methodology

This report presents the outcome of a Screening assessment to identify whether significant effects or impacts are likely to arise from the proposed development. It is important to emphasise that a Screening Assessment does not have to ascertain the existence of a significant effect or impact on a Natura 2000 site as such; it only has to establish whether a significant effect or impact is possible or may occur (as highlighted by Advocate General Sharpston 22nd November 2012 and Ms. Justice Finlay Geoghegan 25th July 2014; see guidelines below). This assessment was undertaken as part of a SHD Pre Application consultation by the client for planning permission of the aforementioned development, where Natura 2000 conservation sites are present in the wider area.

The conservation objectives of Natura 2000 sites have been compiled by the National Parks & Wildlife Service (NPWS) in relation to the habitats and species (*i.e.* qualifying interests) for which the sites are selected. These conservation objectives are referred to when carrying out appropriate assessments for plans and projects that might impact on these sites. So, in this case, the conservation objectives of the relevant Natura 2000 sites have been considered in the following assessment and report.

Documents associated with the development and relevant ecology databases were consulted as part of this assessment (as outlined in Sections 4 & 5 below), as well as site walkovers of the study site in 2018 & 2021 (see Section 2.2 below). The following guidelines were used in the completion of this assessment;

- Appropriate Assessment Screening for Development Management (OPR 2021).
- Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Commission Notice (European Commission 2018).
- Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner’s Manual (EPA 2013).
- Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities (DoEHLG 2009).

conditions of the site concerned by such a plan or project (see, to this effect, Waddenvereniging and Vogelbeschermingsvereniging, paragraph 49)”

- Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – European Commission Methodical Guidance on the provisions of Article 6(3) and 6(4) of the ‘Habitats’ Directive 92/43/EEC (European Commission 2001).
- European Court of Justice Opinion 22nd November 2012 by Advocate General Sharpston; Case C-258/11 Peter Sweetman and Others v An Bord Pleanála – in determining whether a project or plan has an adverse effect on the integrity of a site (to which Article 6(3) of Council Directive 92/43/EEC applies), an effect which is permanent or long lasting must be regarded as an adverse effect.
- European Court of Justice Judgement 11th April 2013 by the Third Chamber; Case C-258/11 Peter Sweetman and Others v An Bord Pleanála - criteria to be applied when assessing the likelihood that a project or plan (N6 Galway City Outer Bypass road scheme in this case) will adversely affect the integrity of a Natura 2000 site (Lough Corrib SAC in this case), where the integrity of a Natura 2000 site is considered to be adversely affected if a plan or project is liable to prevent the lasting preservation of the constitutive characteristics of the site that are connected to the presence of a priority natural habitat whose conservation was the objective justifying the designation of the site.
- High Court Ruling 25th July 2014 by Ms. Justice Finlay Geoghegan; Neutral Citation [2014] IEHC 400; High Court Record No. 2013 802 JR; Kelly -v- An Bord Pleanála – judicial review of grant of planning by An Bord Pleanála for two wind farm phases in County Roscommon, including failure of ABP to carry out lawful appropriate assessment and giving reasons for its determination.
- High Court Ruling 24th November 2014 by Mr. Justice Hedigan; Neutral Citation [2014] IEHC 557; High Court Record No. 2014 320 JR; Rossmore Properties Limited & Anor -v- An Bord Pleanála – where mitigation measures are an intrinsic part of a project, they may be taken into account in the stage 1 screening process.
- High Court Ruling 25th February 2016 by Mr. Justice Barton; Neutral Citation [2016] IEHC 134; High Court Record No. 2013 450 JR; Balz & Heubach -v- An Bord Pleanála - recording complete definitive and precise findings, and conclusions re Appropriate Assessment.
- European Court of Justice Judgement 12th April 2018 by the Seventh Chamber; Case C 323/17; People Over Wind & Sweetman -v- Coillte Teoranta - it is not appropriate, at the screening stage, to take account of the measures intended to avoid or reduce the harmful effects of the plan or project on a Natura 2000 site.
- European Court of Justice 19th April 2018; Case C 164/17; Grace & Sweetman -v- An Bord Pleanála – a measure compensating for the negative effects of a project cannot be taken into account in an Appropriate Assessment Natura Impact Statement (Stage 2).
- European Court of Justice 7th November 2018; Case C 461/17; Holohan & Others v. An Bord Pleanála - all the habitats and species for which the Natura 2000 site is protected must be catalogued; an Appropriate Assessment must identify and examine the implications of the proposed project for species present on the Natura 2000 site, including species for which the site has been listed and those for which it has not, provided those implications are liable to affect the conservation objectives of the site; an Appropriate Assessment must identify and examine the implications of the proposed project for species and habitats outside the boundaries of the Natura 2000 site, provided those implications are liable to affect the conservation objectives of the site.; the competent authority may grant consent for a plan or project that leaves for later decision the determination of certain parameters relating to the construction phase if the competent authority is certain (i.e. ‘no reasonable scientific doubt’) that the development consent granted establishes conditions that are strict enough to guarantee that those parameters will not adversely affect the integrity of the site.

- High Court Ruling 2nd February 2019 by Mr. Justice Barniville; Neutral Citation [2019] IEHC 84; High Court Record No. 2017 883 JR; Kelly -v- An Bord Pleanála & Anor- SUDS are not mitigation measures which a competent authority is precluded from considering at the stage 1 screening stage.
- High Court Ruling 21st June 2019 by Mr. Justice Simons; Neutral Citation [2019] IEHC 450; High Court Record No. 2019 20 JR; Heather Hill Management Company clg & anor -v- An Bord Pleanála & anor - a competent authority is not entitled to rely on “best practice measures” for the purposes of a stage 1 screening determination where the legal test is whether measures are intended to avoid and/or reduce a potential harmful effect on a European site.
- High Court Ruling 31st January 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 39; High Court Record No. 2019 33 JR; Peter Sweetman -v- An Bord Pleanála , Ireland and The Attorney General – the competent authority was not entitled to take the measures described in the CEMP into account in carrying out the screening exercise for appropriate assessment in this particular solar farm development case, where the CEMP referenced protection of the River Blackwater that also overlapped with the SAC here.
- High Court Ruling 2nd December 2020 by Mr. Justice Denis McDonald; Neutral Citation [2020] IEHC 622; High Court Record No. 2020 238 JR; Highlands Residents Association and Protect East Meath Limited -v- An Bord Pleanála , Ireland and The Minister For Culture Heritage and The Gaeltacht, Ireland and The Attorney General – the Board (competent authority) erred in law in screening out (in the course of the stage 1 screening exercise carried out by the competent authority) the possibility of significant effects on the relevant four Natura 2000 sites in relation to potential risk arising from the mobilisation of silt and pollutants from the development site in this particular SHD development application, where the relevant application documentation (EIAR, AA NIS, CEMP) referenced protection of the River Boyne within the context that the proposed development site has a relatively close hydrological connection to the four relevant Natura 2000 sites in question here.

2 Brief Description of the Site, Project & Natura 2000 Sites

2.1 Site: Location

The study site is located at Ardarostig townland that is on the south-western edge of Cork City at Bishopstown (see Figure 2.1). The application site encompasses approximately 9.95ha, where the residential part of the study site is currently greenfield in nature comprising of one large open agricultural crop field with largely native hedgerow/treeline habitat along its outer boundary while the pedestrian connection area of the study site largely comprises of vegetated habitat (scrub, woodland, spoil and bare ground, amenity grassland, scattered trees & parkland, recolonising bareground) and non-vegetated habitat (buildings and artificial surfaces; see Figure 2.2). The site is sloping from north to south c. 20-50m above sea level, where it adjoins some private residences at its north-western and north-eastern corners but is otherwise surrounded by farmland and some woodland.

The study site is located within the Lee, Cork Harbour and Youghal Bay River Catchment, Hydrometric Area 19 in the South-Western River Basin District². There are no established watercourses or other water-features at the site. While a small³ unregistered⁴ water-feature was noted flowing into the western end of the proposed new cycle/pedestrian route from an off-site location associated with the adjoining willow-dominated woodland/scrub habitat that best classifies as eroding/upland stream⁵, it is not a typically well-established stream feature as such (*e.g.* does not support aquatic based biodiversity features) where it appears to be a water-feature that arises on occasion from peak rain events; it is proposed to manage the flow of this unregistered water-feature by incorporating a filter drain along the southern boundary of the proposed new cycle/pedestrian route (see Drawing Nos. 0420, 0421, 0422 & 0423 by DOSA accompanying the planning application). The nearest known watercourses include Two Pot (Cork City) River c. 180m to the west of the site and Glasheen (Cork City) River c. 345m to the east that both ultimately flow into the River Lee at the Lee (Cork) Estuary Upper/Lower Transitional Waterbody, which in turn flows into Lough Mahon Transitional Waterbody that is associated with Cork Harbour SPA and Great Island Channel SAC (see Figure 2.1). At the time of this study, while no water quality or Water Framework Directive (WFD) status data were available for either Two Pot (Cork City) River or Glasheen (Cork City) River, both watercourses were considered to be at risk under the WFD risk assessment².

2.2 Site: Walkover

Site walkovers of the residential part of the study site were initially undertaken on 4th July & 15th October 2018 with follow-up walkovers of the current study site on 22nd January & 3rd February 2021. An objective of site walkovers was to gain an overview of the overall study site as well as to note ecological points of interest such as the presence of habitats/species that are protected or are qualifying interests of the Natura 2000 sites relevant here (as outlined in Section 2.4 below) and invasive plant species.

The residential part of the study site comprises of one relatively large field that is currently subject to crop related agricultural management with largely native hedgerow/treeline habitat along its boundary

² see <https://gis.epa.ie/EPAMaps/>

³ Wetted width c. 30-40 cm & depth c. 5-10 cm

⁴ Under EPA rivers database

⁵ After Fossitt J.A. 2000. *A Guide to Habitats in Ireland*. Heritage Council, Kilkenny.

apart from a section adjoining gardens associated with some private residences that include non-native planting (see Plate 1 & Figure 2.2). The pedestrian connection area of the study site is dominated by vegetated habitat (scrub, woodland, spoil and bare ground, amenity grassland, scattered trees & parkland, recolonising bareground) and non-vegetated habitat (buildings and artificial surfaces; see Plate 1 & Figure 2.2).

While no non-native invasive plant species listed on the Third Schedule of the 2011 European Communities (Birds and Natural Habitats) Regulations (*i.e.* species of which it is an offense to disperse, spread or otherwise cause to grow in any place) and of European Union concern⁶ (IAS Regulation 1143/2014) were recorded, a number of non-native invasive plants were recorded overall. **Cherry laurel *Prunus laurocerasus*** was recorded within and immediately adjacent to the proposed development site in the form of garden boundary hedges. This species has been classified as a 'risk of high impact' invasive species (Kelly *et al.* 2013). **Butterfly bush *Buddleja davidii*** was recorded adjacent to the existing footpath, south of the boundary fencing. This species has been classified as a 'risk of medium impact' invasive species (Kelly *et al.* 2013). **Old man's beard/Travellers joy *Clematis vitalba*** was also recorded in this area; this species has been classified as a 'risk of medium impact' invasive species (Kelly *et al.* 2013). In addition, a small patch of Montbretia (*Crocasmia* sp.) was recorded within bare ground habitat, possibly a cast-off from an adjacent garden. **Winter heliotrope *Petasites pyrenaicus*** was recorded within and adjacent to bare ground habitat; this species has been assessed as 'low risk of impact'⁷. **Japanese rose *Rosa rugosa*** was recorded within the scrub habitat adjacent to the flyover of the Waterfall road over the N22. This species has been classified as a 'risk of medium impact' invasive species (Kelly *et al.* 2013). The spread of non-native invasive plants should not be facilitated in accordance with current guidelines (*e.g.* Maguire *et al.* 2008, NRA 2010), where the management of same should be integrated into site development works where necessary.

The overall study site does not currently support habitats/species that are qualifying interests of the Natura 2000 sites under consideration here, or of particular ex-situ ecological value for such qualifying interests (see Section 2.4 below).



⁶ <http://www.biodiversityireland.ie/projects/invasive-species/union-concern-ias/> (accessed 03/02/2021)

⁷ <https://species.biodiversityireland.ie/profile.php?taxonId=43895> (accessed 03/02/2021)



Plate 1: Overview of large open crop field with hedge/tree boundary (top) and examples of vegetated & non-vegetated areas of the pedestrian connection area (bottom).

2.3 Project Details

The proposed development will involve the construction of a mixed use residential development with commercial space, crèche, landscaping, road improvement, pedestrian/cycleway and site development works. The proposed development will consist of 137 houses and 139 apartments over 5 apartment blocks (see Appendix A). The proposed development will provide for new vehicular and pedestrian entrances onto Waterfall Road, a two-way cycle track and pedestrian footpath linking to existing shared surface pathway south of the N40, upgrades to this shared surface path to provide two-way cycle track and pedestrian footpath, pedestrian crossings to the east of the site and on waterfall road, infrastructure development works comprising the relocation/undergrounding of ESB powerlines, wastewater treatment proposals, surface water attenuation, water utility services and all ancillary site development.

A site specific flood risk assessment for the project confirms that the study site does not have a history of flooding and concludes that the proposed development will not increase the risk of flooding elsewhere with the implementation of standard SuDS measures that will maintain operational surface-water run-off discharge from the site at current discharge rates (see DOSA 2021a and 2021c).

The proposed site development works will be carried out in accordance with best practice regarding standard environmental protection (*e.g.* CIRIA 2015 and 2001), where it is currently anticipated that the completion of the development will take up to 3 years. Environmental inputs associated with the proposed development will include surface-water run-off, waste-water and other wastes; however, these inputs will be controlled/managed as follows.

2.3.1 Surface-Water Run-Off: Construction Phase

There are no established watercourses/other water-features at the study site that may potentially convey construction stage surface-water run-off off-site. While a small unregistered water-feature was noted flowing into the western end of the proposed new cycle/pedestrian route from an off-site location associated with the adjoining willow-dominated woodland/scrub habitat, it is not a typically well-established stream feature as such (*e.g.* does not support aquatic based biodiversity features) where it appears to be a water-feature that arises on occasion from peak rain events. As previously mentioned, it is proposed to manage the flow of this unregistered water-feature by incorporating a filter drain along the southern boundary of the proposed new cycle/pedestrian route (see Drawing Nos. 0420, 0421, 0422&

0423 by DOSA accompanying the planning application); therefore, this unregistered water-feature will be managed such that it will not be a potential conduit of run-off off-site.

Although surface-water run-off associated with the construction stage will generally percolate to ground, standard environmental controls will nonetheless be implemented as part of the project to ensure the appropriate management and control of surface-water run-off potentially arising from development activities at the site (*e.g.* CIRIA 2015 and 2001). As construction progresses, part of the proposed surface-water drainage network may become active where it will be connected into an existing public stormwater sewer network nearby. This public stormwater sewer discharges into the Glasheen (Cork City) River to the east-north-east where a public stormwater outfall is present (see Figure 2.1). The construction stage surface-water run-off controls will be specific to the site, proposed works and Glasheen (Cork City) River as follows (see DOSA 2021b);

- A Site Environment Plan (SEP) will be provided at construction stage identifying fuel storage and refuelling locations will be developed and this plan will also identify the spill kit locations. Spill response kits will be required for each piece of heavy equipment (*i.e.* Excavators, Loaders, Trucks) which will be at least 21 litre drum size each with spill pads, sorbent, small boom, plastic garbage bag and gloves.
- Silt traps will be installed on surface water drains during the site development works.
- The following measures will be implemented for the storage and use of hydrocarbons on site:
 - Diesel tanks, used to store fuel for the various items of machinery, will be self-contained and double-walled.
 - Refuelling will be carried out from these tanks or from delivery vehicles and will not be left unattended.
 - Fuels, lubricants and hydraulic fluids for equipment used on the construction site will be carefully handled to avoid spillage, properly secured against unauthorised access or vandalism, and provided with spill containment according to best codes of practice (Enterprise Ireland BPGCS005)
 - Any spillage of fuels, lubricants or hydraulic oils will be immediately contained and the contaminated soil removed from the site and properly disposed of.
 - Waste oils and hydraulic fluids will be collected in leak-proof containers and removed from the site for disposal or re-cycling.

2.3.2 Surface-Water Run-Off: Operational Phase

Operational stage surface-water run-off arising from the proposed development will be collected by a new surface-water SuDS⁸ drainage system that will connect into the existing nearby public stormwater sewer (see DOSA 2021c). As previously mentioned, the public stormwater sewer discharges into the Glasheen (Cork City) River to the east-north-east via a public stormwater outfall (as outlined in Section 2.3.1 above; see Figure 2.1). The new surface-water drainage system will be serviced by underground attenuation tanks designed for a 100 year storm event with release of stormwater at the existing greenfield run-off rate (see DOSA 2021c). Hydrocarbon interceptors with associated silt storage capacity will be incorporated into each local drainage network within the site prior to discharge into the underground attenuation tanks (see DOSA 2021c). Other proposed SuDS features include permeable

⁸ Sustainable Drainage System

paving at private driveways, green roofs on the apartment blocks, rainwater harvesting for gardening use and integration of tree pits along the estate road where possible (see DOSA 2021c). All SuDS features will require routine maintenance as part of the operational phase (see DOSA 2021c).

The SuDS surface-water drainage system will thereby manage and control run-off associated with new hardstanding elements of the development during the operational stage. Such operational environmental controls will be specific to the site, operations and Glasheen (Cork City) River.

2.3.3 Waste-Water/Foul Effluent

Prior to the site being connected into the public foul sewer, **construction stage** waste-water/foul effluent will initially be managed and controlled at the temporary site compound through the use of portaloos and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator.

When the site is connected to the public foul sewer network, **construction and operational stage** waste-water/foul effluent from the proposed development will be collected via sewer infrastructure at site that will connect into nearby existing public foul sewer network infrastructure (see DOSA 2021c). The public foul sewer directs waste-water for treatment at Cork City Wastewater Treatment Plant (WWTP) that outfalls into Cork Harbour at Lough Mahon transitional waterbody.

2.3.4 Other Wastes

Other wastes associated with the development will be collected and removed from site by licensed operators during the construction (see DOSA 2021b) and operational stages of the project. This will allow for the appropriate control and management of other wastes at site, with no uncontrolled releases of same into the environment.

Figure 2.1: Study Site Location & Natura 2000 Sites

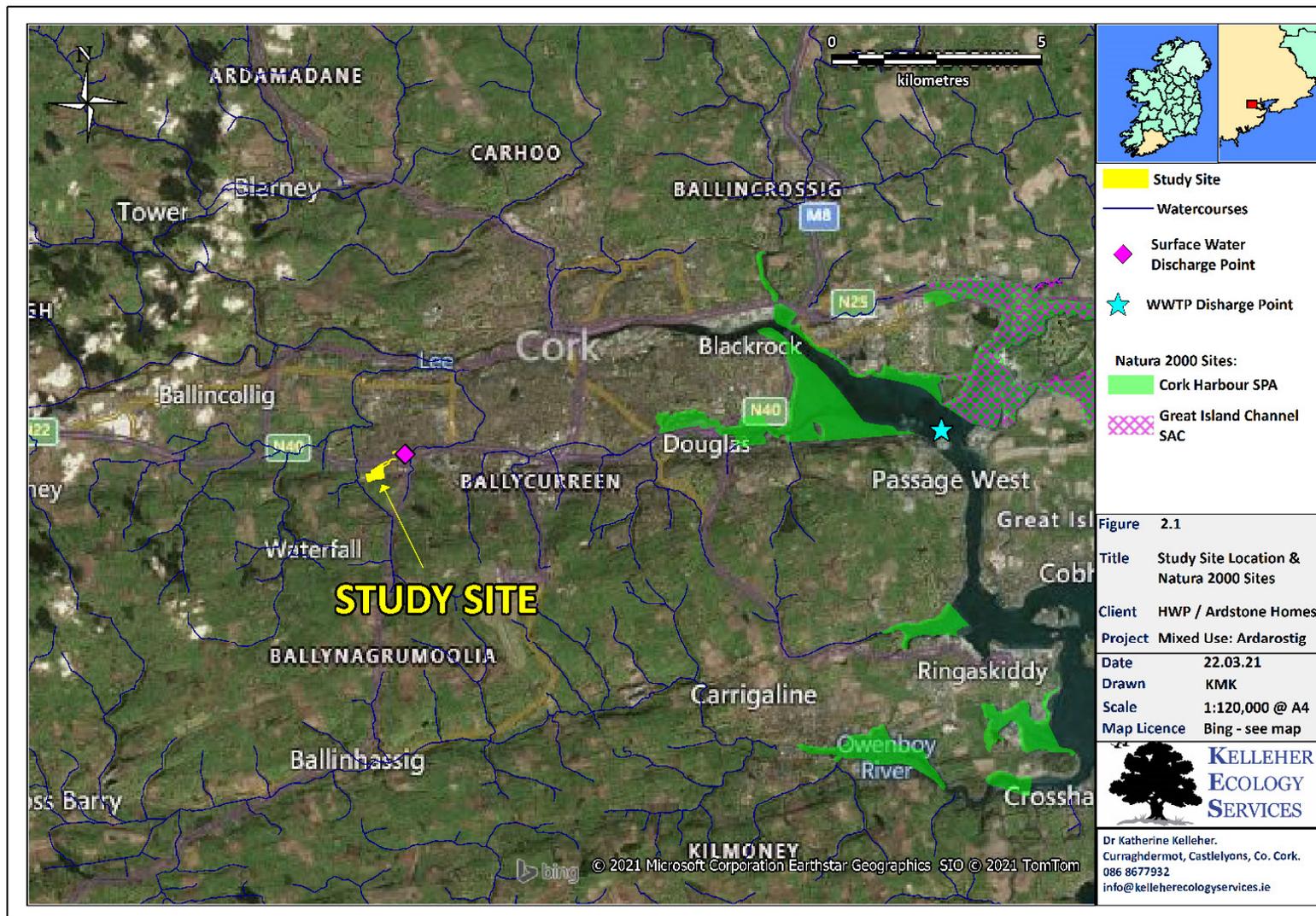


Figure 2.2: Study Site



2.4 Description of the Natura 2000 Sites

Natura 2000 sites were identified through a desktop mapping review (using MapInfo Pro, a geographic information system software programme), where focus was given to sites where a potential impact-receptor pathway or zone of influence with the study site may be relevant. In other words, Natura 2000 sites that may potentially have a link to the study site were focused on as part of this assessment (*e.g.* through hydrological link, overlapping, proximity, ex-situ usage).

In this case, the study site is not part of or close to any Natura 2000 designated sites nor does it require any resources from them, thereby ruling out any direct habitat loss at such conservation sites.

2.4.1 Potential Impact-receptor Pathways: Overview

2.4.1.1 Surface-Water Run-Off

There is a potential impact-receptor pathway via surface-water run-off between the study site and Cork Harbour SPA via the public stormwater sewer network, Glasheen (Cork City) River and River Lee. Surface-water run-off arising from the site will discharge into Glasheen (Cork City) River via the public stormwater network, which flows into the River Lee that in turn flows into Lough Mahon transitional waterbody where sections of Cork Harbour SPA are present >12km downstream of the study site (see Table 2.1 & Figure 2.1).

Great Island Channel SAC is located within part of the Lough Mahon transitional waterbody that adjoins the River Lee water channel (that is also part of Lough Mahon transitional waterbody) and is subject to tidal inundation. Although this Natura 2000 site is not technically downstream of the study site here as such, a precautionary approach is deemed appropriate here given the fact that it is close to the River Lee water channel and is subject to tidal inundation >17km downstream of the study site (see Table 2.1 & Figure 2.1).

There are no other Natura 2000 sites where a potential impact-receptor pathway is relevant in relation to surface-water run-off impacts.

2.4.1.2 Waste-Water/Foul Effluent

Prior to the site being connected into the public foul sewer, construction stage waste-water/foul effluent will be managed and controlled at the temporary site compound through the use of portaloo's and welfare units with storage tanks, where sanitary waste will be removed from site via a licenced waste disposal operator. In this instance, no hydrological link via effluent will be relevant to any of the Natura 2000 sites under consideration here.

When the site is connected to the public foul sewer network, construction and operational stage waste-water/foul effluent arising from the proposed development will be discharged into the public foul effluent network for treatment at Cork City WWTP. Treated waste-water from the WWTP ultimately outfalls into Cork Harbour at Lough Mahon, where sections of Cork Harbour SPA are >4km downstream of the WWTP discharge point (see Table 2.1). A potential impact-receptor pathway

therefore exists between the study site and Cork Harbour SPA via waste-water discharge during the operational phase of the proposed residential development.

While Great Island Channel SAC is not downstream of the WWTP discharge point (see Figure 2.1), tidal/wind movements could be of some relevance in relation to the SAC, where its boundary is c. 550m north-east of the WWTP's discharge point. However, an assessment on the conservation status of the SAC does not highlight potential impacts arising from tidal/wind movements from Cork City WWTP's discharge point as a significant point of concern but instead highlights water quality management in relation to two other upstream WWTPs (Midleton & Carrigtwohill WWTPs) to maintain/restore the favourable conservation status of the SAC's qualifying interest 'Mudflats and Sandflats' (O'Neill *et al.* 2014). Therefore, a hydrological link via effluent is not considered relevant in this case and no further assessment is made in this Screening regarding such an impact in relation to Great Island Channel SAC.

There are no other Natura 2000 sites where a potential impact-receptor pathway is relevant in relation to waste-water/foul effluent impacts.

2.4.1.3 Disturbance/Displacement

Disturbance/displacement impacts of fauna that are listed as qualifying interests of a Natura 2000 through noise and/or visual cues needs consideration. This also includes ex-situ disturbance/displacement impacts on highly mobile species that are qualifying interests of the relevant Natura 2000 sites; ex-situ impacts occur when highly mobile species occur outside of the boundaries of their designated Natura 2000 sites (*e.g.* to forage or commute).

As the conservation objectives of Great Island Channel SAC relate to habitats and not fauna (see Table 2.1), disturbance/displacement impacts are not relevant to this Natura 2000 site. Furthermore, the study site does not overlook the SAC due to distance (>12km) combined with screening from existing buildings/vegetation/topography.

The conservation objectives of Cork Harbour SPA relate to waterbird qualifying interest species that typically forage and roost along intertidal mudflats and coastal wetlands/fields associated with Cork Harbour (see Table 2.1). While such fauna could suffer disturbance/displacement impacts as a result of the construction/operation of a development such as described here, the study site in this case does not overlook Cork Harbour due to distance (>6km) combined with screening from existing buildings/vegetation and topography. Furthermore, the study site does not support habitats of ex-situ ecological value for qualifying interest species of the SPA in question, where the study site is dominated by intensive crop farmland with hedgerow/treeline, vegetated habitat (scrub, woodland, spoil and bare ground, amenity grassland, scattered trees & parkland, recolonising bareground) and non-vegetated habitat (buildings and artificial surfaces. Also, the study site is not of known historical importance for waterbirds (see Crowe 2005 and IWeBS online mapping⁹).

Taking the above into consideration, no disturbance/displacement impacts (including ex-situ) are considered relevant here in relation to the Natura 2000 sites under consideration here. There are no

⁹ <https://bwi.maps.arcgis.com/apps/View/index.html?appid=1043ba01fcb74c78bc75e306eda48d3a>

other Natura 2000 sites where a potential impact-receptor pathway is relevant in relation to disturbance/displacement impacts (including ex-situ).

2.4.1.4 Invasive Plants

Activities associated with development works can inadvertently result in the spread of invasive plants, where a watercourse/water-feature can subsequently act as a potential impact-receptor pathway regarding indirect habitat loss/damage to downstream locations in the wider area including any Natura 2000 sites that are present.

In this case, there are no established watercourses/other water-features at the study site that may potentially act as an impact-receptor pathway for the spread of invasive plants (including the unregistered water-feature noted in association with the adjoining willow-dominated woodland/scrub habitat as outlined in Section 2.3.1 above). Furthermore, the non-native invasive plant species in question here (as outlined in Section 2.2 above) are terrestrial based invasive plants, such that their potential spread from site would not be particularly relevant in relation to aquatic based Natura 2000 sites such as Cork Harbour SPA/Great Island SAC here. Taking the above into consideration, potential indirect habitat loss/damage impacts on downstream Natura 2000 sites arising from the spread of invasive plants are not considered relevant here.

There are no other Natura 2000 sites where a potential impact-receptor pathway is relevant in relation to indirect habitat loss/damage arising from the spread of invasive plants here.

2.4.2 Potential Impact-receptor Pathways: Summary

In summary, Section 3.1 further considers; (i) potential construction/operational surface-water run-off impacts in relation to Cork Harbour SPA and Great Island Channel SAC and (ii) potential waste-water discharge impacts in relation to Cork Harbour SPA.

Table 2.1 Natura 2000 Site Summary

Natura 2000 Site & Site Code	Qualifying Interests & Conservation Objectives	Minimum Distance From Site Boundary & Discharge Points
Cork Harbour SPA 004030	<p>Cork Harbour is of major ornithological significance, being of international importance both for the total numbers of wintering birds (<i>i.e.</i>>20,000). Several of the species which occur regularly are listed on Annex I of the E.U. Birds Directive. The site provides both feeding and roosting sites for the various bird species that use it. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interests (after NPWS 2014a);</p> <p>Wintering bird species: Little Grebe <i>Tachybaptus ruficollis</i>, Grey Plover <i>Pluvialis squatarola</i>, Great Crested Grebe <i>Podiceps cristatus</i>, Lapwing <i>Vanellus vanellus</i>, Cormorant <i>Phalacrocorax carbo</i>, Dunlin <i>Calidris alpina alpina</i>, Grey Heron <i>Ardeacinerea</i>, Black-tailed Godwit <i>Limosa limosa</i>, Shelduck <i>Tadorna tadorna</i>, Bar-tailed Godwit <i>Limosa lapponica</i>, Wigeon <i>Anas penelope</i>, Curlew <i>Numenius arquata</i>, Teal <i>Anas crecca</i>, Redshank <i>Tringatetus</i>, Pintail <i>Anas acuta</i>, Black-headed Gull <i>Chroicocephalus ridibundus</i>, Shoveler <i>Anas clypeata</i>, Common Gull <i>Larus canus</i>, Red-breasted Merganser <i>Mergus serrator</i>, Lesser Black-backed Gull <i>Larus fuscus</i>, Oystercatcher <i>Haematopus ostralegus</i>, Golden Plover <i>Pluvialis apricaria</i>.</p> <p>Breeding bird species: Common Tern <i>Sterna hirundo</i>.</p> <p>Habitat: Wetlands.</p>	<p><u>Site Boundary:</u> Over-land: 6.2km</p> <p><u>Discharge:</u> Surface-water: >12km Waste-water: >4.0km</p>
Great Island Channel SAC 001058	<p>The Great Island Channel stretches from Little Island to Midleton, with its southern boundary being formed by Great Island. The main habitats of conservation interest in Great Island Channel SAC are the sheltered tidal sand and mudflats and the Atlantic salt meadows. This SAC overlaps with part of the Cork Harbour SPA, with its estuarine habitats providing foraging and roosting resources for wintering waders and wildfowl for which the SPA is designated. Its conservation objectives relate to maintaining the favourable conservation condition of the following qualifying interests (after NPWS 2014b);</p> <p>Annex I Habitats: Tidal Mudflats and Sandflats (1140), Atlantic Salt Meadows (1330).</p>	<p><u>Site Boundary:</u> Over-land: 12.9km</p> <p><u>Discharge:</u> Surface-water: >17km Waste-water: n/a</p>

3 Screening: Assessment Criteria

3.1 Elements of the Project Likely to Impact on the Natura 2000 Sites

As outlined above in Section 2.4, further consideration of the following potential impacts is assessed here in respect of examining elements of the development that are likely to or may cause a significant effect or impact on Cork Harbour SPA and Great Island Channel SAC.

3.1.1 Indirect Habitat Loss or Deterioration

Indirect habitat loss or deterioration of Natura 2000 sites within the surrounding area can occur from the effects of run-off or discharge into the aquatic environment through impacts such as increased siltation, nutrient release and/or contamination. This requires connectivity between the site and the Natura 2000 site in question through watercourses and/or drainage. In this case, there is a potential impact-receptor pathway via (i) surface-water discharge between the study site and Cork Harbour SPA and Great Island Channel via the public stormwater sewer network, Glasheen (Cork City) River and River Lee and (ii) operational waste-water between the study site and Cork Harbour SPA via Cork City WWTP.

3.1.1.1 Surface-Water Run-Off: Construction Phase

There are no established watercourses/other water-features at the study site that may potentially convey construction stage surface-water run-off off-site (including the unregistered water-feature noted in association with the adjoining willow-dominated woodland/scrub habitat as outlined in Section 2.3.1 above).

While surface-water run-off associated with the construction stage will generally percolate to ground, standard environmental controls will nonetheless be implemented as part of the project to ensure the appropriate management and control of surface-water run-off potentially arising from development activities at the site (as outlined in Section 2.3.1 above). As construction progresses, part of the proposed surface-water drainage network may become active where it will be connected into an existing public stormwater sewer network nearby. This public stormwater sewer discharges into the Glasheen (Cork City) River to the east-north-east via a public stormwater outfall (see Figure 2.1). The construction stage surface-water run-off controls will be specific to the site, proposed works and Glasheen (Cork City) River (as outlined in Section 2.3.1 above). These controls are not intended to address any particular risks to other water-features and associated Natura 2000 sites downstream of the Glasheen (Cork City) River here (*i.e.* River Lee, Lough Mahon transitional waterbody, Cork Harbour SPA and Great Island Channel SAC); such controls would be proposed regardless of the SAC/SPA sites that are relatively distant in this case (>6km downstream). Therefore, no measures are specifically required to address risks to the Natura 2000 sites in this case.

Taking the above into consideration, no indirect habitat loss or deterioration of Cork Harbour SPA or Great Island Channel SAC in relation to surface-water run-off arising from the construction of the proposed development is deemed likely in this case.

3.1.1.2 Surface-Water Run-Off: Operational Phase

Operational phase surface-water run-off will be managed and controlled prior to discharge into the public stormwater network and Glasheen (Cork City) River with the implementation of a SuDS surface-water drainage strategy (as outlined in Section 2.3.2 above) that will be specific to the site, operations and Glasheen (Cork City) River. These controls are not intended to address any particular risks to other water-features and associated Natura 2000 sites downstream of the relevant surface-water discharge points into the Glen River here (*i.e.* River Lee, Lough Mahon transitional waterbody, Cork Harbour SPA and Great Island Channel SAC); such controls would be proposed regardless of the SAC/SPA sites that are relatively distant in this case (>6km downstream). Therefore, no measures are specifically required to address risks to the Natura 2000 sites in this case.

Taking the above into consideration, no indirect habitat loss or deterioration of Cork Harbour SPA or Great Island Channel SAC is deemed likely in this case in relation to operational phase surface-water run-off.

3.1.1.3 Waste-Water/Foul Effluent

When the site is connected to the public foul sewer network, there is a potential impact-receptor pathway via construction/operational waste-water/foul effluent links between the study site and Cork Harbour SPA. When the site is connected to the public foul sewer network, construction/operational phase waste-water/foul effluent arising from the proposed development will be discharged into the public foul effluent network for treatment at Cork City WWTP that ultimately discharges into Cork Harbour at Lough Mahon, where Cork Harbour SPA is several kilometres downstream of the WWTP discharge point.

Even though Cork City WWTP is currently non-compliant in relation to Total Nitrogen and Phosphorus, improvement requirements are currently under consideration in relation to the WWTP and ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality or the WFD status of the receiving waters (Irish Water 2020). Furthermore, the WWTP has sufficient capacity to accept the additional organic loading of 777 PE from the operational development (including residential of 745 PE and crèche of 32 PE), where remaining organic capacity is >100k PE (see Irish Water 2020); this has also been confirmed by Irish Water's pre-connection enquiry response that the proposed foul connection can be facilitated (see Appendix B).

Taking the above into consideration, no indirect habitat loss or deterioration of Cork Harbour SPA in relation to waste-water via WWTP discharge is deemed likely in this case.

3.2 Likely Impacts of the Project on the Natura 2000 Sites

- Size, Scale & Land-take
- Distance from or Key Features of the Natura 2000 Sites
- Resource Requirements (water abstraction *etc.*)
- Excavation Requirements
- Emission (disposal to land, water or air)
- Transportation Requirements

- Duration of Operations
- Cumulative and In-combination Effects
 - Potential cumulative effects could include construction/operational related surface-water and operational related foul effluent inputs into water-features, where qualifying interests of Natura 2000 sites associated with such water-features could be subject to cumulative effects through hydrological or water quality impacts such as increased siltation, nutrient release, contaminated run-off arising from this proposed development in-combination with other relevant permitted developments. In this case, construction/operational surface-water is of relevance to the Glasheen (Cork City) River while operational foul effluent will be directed to Cork City WWTP for treatment.

Construction/operational phase surface-water management proposals will be implemented that will be specific to the site, proposed works/operations and the Glasheen (Cork City) River with no measures specifically required to address risks to Natura 2000 sites in this case. The current Cork City Development Plan outlines a city-based objective in relation to the management of stormwater in accordance with SuDS strategies (Section 2.2.4 & Objective 12.3; CCC 2015) that is complimented by the surface-water management strategy here through the inclusion of SuDS related aspects such as attenuation with hydrocarbon and silt interception (as outlined in Section 2.3 above).

While improvement requirements are currently under consideration in relation to Cork City WWTP and waste-water/foul effluent treatment, ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality while WFD status remains moderate at all monitoring points (Irish Water 2020). Furthermore, there is significant remaining capacity currently available at Cork City WWTP to cater for the additional proposed foul effluent here.

Taking the above into consideration, no cumulative/in-combination effects on Natura 2000 sites are considered relevant in this case.

None of the above are applicable - as outlined in Sections 2.4 and 3.1 above, it is deemed unlikely that the proposed development will significantly impact on the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

3.3 Likely Changes to the Natura 2000 Sites

- Reduction of Habitat Area
- Disturbance to Key Species
- Habitat or Species Fragmentation
- Reduction in Species Density
- Changes in Key Indicators of Conservation Value (water quality *etc.*)

None of the above are applicable - as outlined in Sections 2.4 and 3.1 above, it is deemed unlikely that the proposed development will significantly impact on the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

3.4 Likely Impacts on the Natura 2000 Sites as a Whole

- Interference with the Key Relationships that Define the Structure of the Natura 2000 Sites
- Interference with Key Relationships that Define the Function of the Natura 2000 Sites

None of the above are applicable - as outlined in Sections 2.4 and 3.1 above, it is deemed unlikely that the proposed development will significantly impact on the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

3.5 Indicators of Significance as a Result of the Identification of Effects Set Out Above

- Loss
- Fragmentation
- Disruption
- Disturbance
- Change to Key Elements of the Site

None of the above are applicable - as outlined in Sections 2.4 and 3.1 above, it is deemed unlikely that the proposed development will significantly impact on the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

3.6 Elements of the Project Likely to Significantly Impact on the Natura 2000 Sites or where the Scale or Magnitude of Impacts are Unknown

Taking the above into consideration, it can be objectively concluded that no significant effects arising from the proposed development works are likely to occur in relation to the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.

The key considerations that contributed towards this conclusion are summarised as follows;

3.6.1 Potential Significant Effects: Conclusion

- As none of the Natura 2000 sites overlap the study site, direct impacts via habitat loss are not relevant.
- No indirect construction/operational stage surface-water run-off impacts on Cork Harbour SPA and Great Island Channel SAC are expected as a result of the proposed development as follows. Standard environmental controls (as summarised in Sections 2.3.1 & 2.3.2 above) will be implemented as part of the project to ensure the appropriate management and control of surface-water run-off associated with the proposed development that will be specific to the site, proposed works/operations and Glasheen (Cork City) River. Such controls are not intended to address any particular risks to other water-features and associated Natura 2000 sites downstream of the Glasheen (Cork City) River here; such controls would be proposed regardless

of the Natura 2000 sites that are relatively distant in this case (>6km downstream). Therefore, no measures are specifically required to address risks to the Natura 2000 sites in this case.

- No indirect hydrological impacts on Cork Harbour SPA via waste-water/foul effluent are expected as a result of the proposed development as follows. Prior to the site being connected into the public foul sewer, construction phase waste-water/foul effluent will be managed and controlled at the temporary site compound, where sanitary waste will be removed from site via a licenced waste disposal operator. When the site is connected to the public foul sewer network, construction/operational phase waste-water/foul effluent from the proposed development will be collected via new sewer infrastructure at site and discharged for treatment at Cork City WWTP, which has significant sufficient capacity to accept the additional operational discharge as confirmed by Irish Water's pre-connection enquiry response that the proposed foul connection can be facilitated. Ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality or WFD status in the receiving environment.
- Indirect hydrological impacts on Great Island Channel SAC via waste-water/foul effluent are not considered relevant here as follows: Great Island Channel SAC is not downstream of the WWTP's discharge point, although its boundary is c. 550m north-east of the WWTP's discharge point. However, potential impacts on the SAC arising from tidal/wind movements from Cork City WWTP's discharge point have not been highlighted as being of significant concern in an assessment on the conservation status of the SAC, but rather the impacts from two other upstream WWTPs have been highlighted instead (see O'Neill *et al.* 2014).
- Disturbance/displacement impacts of fauna that are listed as qualifying interests of the Natura 2000 sites are not relevant here as (i) the site does not overlook Natura 2000 sites due to distance combined with screening from existing buildings/vegetation and topography (ii) the conservation objectives of Great island Channel SAC relate to habitats and not fauna and (iii) the study site does not support habitats of ex-situ ecological value for qualifying interest species of Cork Harbour SPA.
- Potential impacts relating to invasive plants are not relevant in this case, due to the lack of established watercourses/other water-features at the study site that may potentially act as an impact-receptor pathway for the spread of invasive plant combined with the fact that the non-native invasive plant species in question here are terrestrial based invasive plants such that their potential spread from site would not be particularly relevant regarding aquatic based Natura 2000 sites such as Cork Harbour SPA/Great Island SAC here.

4 Finding of No Significant Effects Report

Name and location of the Natura 2000 sites.	Cork Harbour SPA and Great Island Channel SAC. See Figure 2.1 above.
Description of the project or plan.	The proposed development will involve the construction of a mixed use residential development with commercial space, crèche, landscaping, road improvement, pedestrian / cycleway and site development works. The proposed development will consist of 137 houses and 139 apartments over 5 apartment blocks. The proposed development will provide for new vehicular and pedestrian entrances onto Waterfall Road, a two-way cycle track and pedestrian footpath linking to existing shared surface pathway south of the N40, upgrades to this shared surface path to provide two-way cycle track and pedestrian footpath, pedestrian crossings to the east of the site and on waterfall road, infrastructure development works comprising the relocation/undergrounding of ESB powerlines, wastewater treatment proposals, surface water attenuation, water utility services and all ancillary site development.
Is the Project or Plan directly connected with or necessary to the management of the site (provide details)?	No.
Are there other projects or plans that together with the project of plan being assessed could affect the site (provide details)?	No.
The Assessment of Significant Effects	
Describe how the project or plan (alone or in combination) is likely to affect the Natura 2000 site.	Due to the reasons outlined in the following section, it is felt that no elements of the project are likely to impact on the Natura 2000 sites; Cork Harbour SPA and Great Island Channel SAC.
Explain why these effects are not considered significant.	<ul style="list-style-type: none"> ▪ As none of the Natura 2000 sites overlap the study site, direct impacts via habitat loss are not relevant. ▪ No indirect construction/operational stage surface-water run-off impacts on Cork Harbour SPA and Great Island Channel SAC are expected as a result of the proposed development as follows. Standard environmental controls (as summarised in Sections 2.3.1 & 2.3.2 above) will be implemented as part of the project to ensure the appropriate management and control of surface-water run-off associated with the proposed development that will be specific to the site, proposed works/operations and Glasheen (Cork City) River. Such controls are not intended to address any particular risks to other water-features and associated Natura 2000 sites downstream of the Glasheen (Cork City) River here; such controls would be proposed regardless of the Natura 2000 sites that are relatively distant in this case (>6km downstream). Therefore, no measures are specifically required to address risks to the Natura 2000 sites in this case. ▪ No indirect hydrological impacts on Cork Harbour SPA via waste-water/foul effluent are expected as a result of the proposed development as follows. Prior to the site

	<p>being connected into the public foul sewer, construction phase waste-water/foul effluent will be managed and controlled at the temporary site compound, where sanitary waste will be removed from site via a licenced waste disposal operator. When the site is connected to the public foul sewer network, construction/operational phase waste-water/foul effluent from the proposed development will be collected via new sewer infrastructure at site and discharged for treatment at Cork City WWTP, which has significant sufficient capacity to accept the additional operational discharge as confirmed by Irish Water's pre-connection enquiry response that the proposed foul connection can be facilitated. Ambient monitoring of transitional and coastal receiving waters indicates that discharge from the WWTP does not have an observable negative impact on water quality or WFD status in the receiving environment.</p> <ul style="list-style-type: none"> ▪ Indirect hydrological impacts on Great Island Channel SAC via waste-water/foul effluent are not considered relevant here as follows: Great Island Channel SAC is not downstream of the WWTP's discharge point, although its boundary is c. 550m north-east of the WWTP's discharge point. However, potential impacts on the SAC arising from tidal/wind movements from Cork City WWTP's discharge point have not been highlighted as being of significant concern in an assessment on the conservation status of the SAC, but rather the impacts from two other upstream WWTPs have been highlighted instead (see O'Neill <i>et al.</i> 2014). ▪ Disturbance/displacement impacts of fauna that are listed as qualifying interests of the Natura 2000 sites are not relevant here as (i) the site does not overlook Natura 2000 sites due to distance combined with screening from existing buildings/vegetation and topography (ii) the conservation objectives of Great Island Channel SAC relate to habitats and not fauna and (iii) the study site does not support habitats of ex-situ ecological value for qualifying interest species of Cork Harbour SPA. ▪ Potential impacts relating to invasive plants are not relevant in this case, due to the lack of established watercourses/other water-features at the study site that may potentially act as an impact-receptor pathway for the spread of invasive plant combined with the fact that the non-native invasive plant species in question here are terrestrial based invasive plants such that their potential spread from site would not be particularly relevant regarding aquatic based Natura 2000 sites such as Cork Harbour SPA/Great Island SAC here. 		
List of agencies consulted.	None.		
Response to consultation.	n/a		
Data Collected to Carry out the Assessment			
Who carried out the assessment	Sources of Data	Level of assessment completed	Where can the full results of the assessment be accessed and viewed
Dr Katherine Kelleher, Principal Ecologist & Director of Kelleher Ecology Services Ltd. BSc & PhD Zoology & MCIEEM.	<ul style="list-style-type: none"> ▪ Pers. comm. with HW Planning. ▪ Associated documents, drawings. ▪ Site walkover, photo/aerial review. ▪ EPA online river mapping database ▪ NPWS online designated site 	Desktop study & site visit; am satisfied that this has yielded enough information to adequately complete a	Full results of the assessment are available in the above Screening report.

	data/mapping. <ul style="list-style-type: none">▪ National Biodiversity Data Centre (NBDC) online mapping▪ References (below)	Screening in support of the AA process.	
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5 References

CCC (Cork City Council). 2015. Cork City Development Plan 2015-2021. Volume One: Written Statement.

CIRIA. 2015 (Fourth Edition). Environmental Good Practice on Site Guide. CIRIA C741. London, UK.

CIRIA. 2001. Control of water pollution from construction sites: guidance for consultants and contractors. CIRIA C532. London 2001.

Crowe, O. 2005. Ireland's Wetlands and their Waterbirds: Status and Distribution. BirdWatch Ireland, Rockingham, Co. Wicklow.

Department of Environment, Heritage & Local Government (DoEHLG). 2009. Appropriate Assessment of Plans and Projects in Ireland – Guidance for Planning Authorities. DoEHLG, Dublin.

DOSA. 2021a. Residential Development, Ardarostig, Bishopstown, Cork. Site Specific Flood Risk Assessment. April 2021. Report compiled as part of SHD planning application.

DOSA. 2021b. Residential Development, Ardarostig, Bishopstown, Cork. Construction & Environmental Management Plan. April 2021. Report compiled as part of SHD planning application.

DOSA. 2021c. Residential Development, Ardarostig, Bishopstown, Cork. Infrastructure Report. April 2021. Report compiled as part of SHD planning application.

European Commission. 2018. Managing Natura 2000 sites. The provisions of Article 6 of the 'Habitats' Directive 92/43/EEC. Commission Notice. Brussels, 21.11.2018.

European Commission. 2001. Assessment of Plans and Projects Significantly Affecting Natura 2000 Sites – European Commission Methodical Guidance on the provisions of Article 6(3) and 6(4) of the 'Habitats' Directive 92/43/EEC. European Commission DG Environment, Oxford UK.

Environmental Protection Agency (EPA). 2013. Integrated Biodiversity Impact Assessment – Streamlining AA, SEA and EIA Processes: Practitioner's Manual. EPA STRIVE Programme 2007–2013; Report Series No. 106. EPA, Wexford.

Irish Water. 2020. Annual Environmental Report 2019. Cork City D0033-01.

Kelly, J., O' Flynn, C., and Maguire, C. 2013. Risk Analysis and Prioritisation for Invasive and Non-Native Species in Ireland and Northern Ireland. A report prepared for the Northern Ireland Environment Agency and National Parks and Wildlife Service as part of Invasive Species Ireland.

Maguire, C.M., Kelly, J. and Cosgrove, P.J. 2008. Best Practice Management Guidelines *Rhododendron* *Rhododendron ponticum* and Cherry Laurel *Prunus laurocerasus*. Prepared for NIEA and NPWS as part of Invasive Species Ireland.

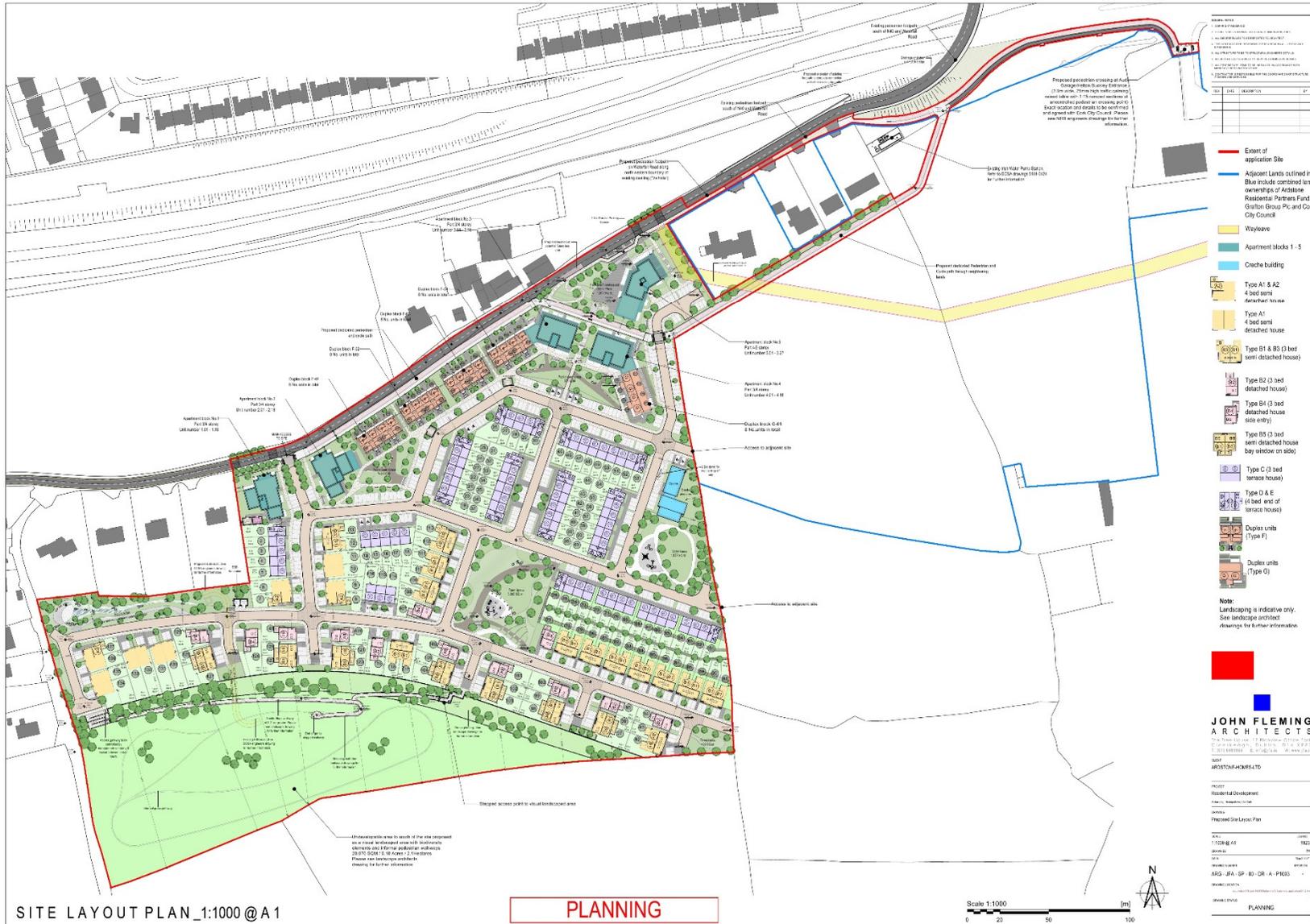
NPWS. 2014a. Conservation Objectives: Cork Harbour SPA 004030. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NPWS. 2014b. Conservation Objectives: Great Island SAC 001058. Version 1. National Parks and Wildlife Service, Department of Arts, Heritage and the Gaeltacht.

NRA (National Roads Authority; now TII). 2010. The Management of Noxious Weeds and Non-Native Invasive Plant Species on National Roads. Revision 1. December 2010.

O'Neill, F.H., Brophy, J.T., Devaney, F.M., Nash, R. & Barron, S.J. 2014. Assessment of the Conservation Status of the Great Island Channel SAC (001058). Report for Cork County Council.

APPENDIX A:
Proposed Development



SITE LAYOUT PLAN_1:1000@A1

PLANNING

Scale: 1:1000
0 20 50 100 [m]



REVISIONS

NO.	DATE	DESCRIPTION	BY

- Extent of application Site
- Adjacent Lanes outlined in Blue include combined land ownerships of Adjacent Residential Partners Fund, Grallon Group, Pic and Cork City Council
- Wayleave
- Apartment blocks 1 - 5
- Cache building
- Type A1 & A2
4 bed semi detached house
- Type A1
4 bed semi detached house
- Type B1 & B3 (3 bed semi detached house)
- Type B2 (3 bed detached house)
- Type B4 (3 bed detached house side entry)
- Type B5 (3 bed semi detached house bay window on side)
- Type C (3 bed terrace house)
- Type D & E (3 bed end of terrace house)
- Duplex units (Type F)
- Duplex units (Type G)

Note:
Landscaping is indicative only.
See landscape architect drawings for further information.

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 T: 01 460 8888 | E: john.fleming@johnfleming.com | www.johnfleming.com

PROJECT:
Residential Development
 Client: [Redacted]
 Location: [Redacted]
 Project: Precised Site Layout Plan

DATE:
11/09/2024

SCALE:
1:1000

PROJECT NO:
JFA-SP-20-DR-A-PROG

STATUS:
PLANNING

Information on the south of the site proposed site is shown. Landscaping and site boundaries are shown in green. For further information please see landscape architect drawings.

Slipped access path to visual landscaped area

Access to adjacent site

APPENDIX B:
Irish Water Pre-Connection Enquiry Response

Stephen O' Grady
DOSA Consulting Engineers
Joyce House
Barrack Square
Ballincollig,
Co. Cork
P31KP84

Uisce Éireann
Bosca OP 448
Oifig Sheachadta na
Cathrach Theas
Cathair Chorcaí

Irish Water
PO Box 448,
South City
Delivery Office,
Cork City.

www.water.ie

12 February 2021

**Re: Design Submission for Ardarostig, Bishopstown, Co. Cork (the “Development”)
(the “Design Submission”) / Connection Reference No: CDS19008826**

Dear Stephen O' Grady,

Many thanks for your recent Design Submission.

We have reviewed your proposal for the connection(s) at the Development. Based on the information provided, which included the documents outlined in Appendix A to this letter, Irish Water has no objection to your proposals.

This letter does not constitute an offer, in whole or in part, to provide a connection to any Irish Water infrastructure. Before you can connect to our network you must sign a connection agreement with Irish Water. This can be applied for by completing the connection application form at www.water.ie/connections. Irish Water's current charges for water and wastewater connections are set out in the Water Charges Plan as approved by the Commission for Regulation of Utilities (CRU) (https://www.cru.ie/document_group/irish-waters-water-charges-plan-2018/).

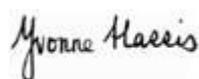
You the Customer (including any designers/contractors or other related parties appointed by you) is entirely responsible for the design and construction of all water and/or wastewater infrastructure within the Development which is necessary to facilitate connection(s) from the boundary of the Development to Irish Water's network(s) (the “**Self-Lay Works**”), as reflected in your Design Submission. Acceptance of the Design Submission by Irish Water does not, in any way, render Irish Water liable for any elements of the design and/or construction of the Self-Lay Works.

If you have any further questions, please contact your Irish Water representative:

Name: Dario Alvarez

Email: dalvarez@water.ie

Yours sincerely,



Yvonne Harris
Head of Customer Operations